

Shashank Reddy Pasham

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Education

University of South Florida

Tampa, FL

Master of Science in Computer Science

Aug 2023 - May 2025

Coursework: Advanced Data Structures and Algorithms, Deep Learning, Fair Machine Learning, Security & Privacy in ML.

Vellore Institute of Technology

Chennai, India

Bachelor of Technology in Computer Science and Engineering

June 2017 – May 2021

Coursework: Data Structures and Algorithms, Object-Oriented Programming, Essentials of Machine Learning.

Technical Skills

Programming: Java, Python, C++, JavaScript, TypeScript, HTML, CSS.

Frameworks & Cloud: React, Flask, TensorFlow, Spring, RESTful API, MVC, AWS, Azure

Databases & Other Technologies: Apache Spark, AWS, MySQL, PostgreSQL, MongoDB, Kafka, Postman, Docker, Figma, Git.

Work Experience

Wipro (Java, Spring Boot, Flask, MySQL, OAuth, Kafka)

Hyderabad, India

Software Engineer

July 2021-July 2023

- Delivered high-quality software in an **Agile environment** by creating and maintaining multiple production-grade Spring Boot **REST APIs**.
- Enhanced **Kafka**-based event processing pipelines by designing and deploying a distributed consumer architecture, resulting in a **30% increase in data ingestion throughput**.
- Developed microservices using **Spring Boot** to enhance scalability, resulting in a 30% performance improvement
- Implemented a secure sign-in system using **Auth0**, integrating **OAuth 2.0** and **OpenID Connect** for authentication and authorization, while securing **APIs** and **microservices** with **JWT authentication** and **OAuth** token validation for scalable, industry-standard access control.
- Collaborated with a team member who led the design of **gRPC-based service interfaces** using **Protocol Buffers** for efficient microservice communication.
- Collaborated with **cross-functional** teams, delivering features on time with strong stakeholder collaboration.
- Implemented **CI/CD pipeline** with **Jenkins**, **Docker**, and **Git**, enabling seamless and automated software delivery.

SmartInternz (Python, Tensorflow, NLTK, ML, CNN, Deep Learning)

Hyderabad, India

Machine Learning Engineer

June 2020 – July 2020

- Developed a Sentiment Analysis model on Twitter data using **Deep Learning** techniques (**LSTM**, **CNN**), achieving high accuracy in classifying positive, negative, and neutral tweets.
- Preprocessed large volumes of unstructured text data using **NLTK**, ensuring clean and normalized input for model training.

Projects

Task Tree Generation for Automated Cooking

- Designed structured robotic task trees using **Gemini LLM** to translate complex cooking instructions into actionable Input, Output, and Motion nodes.
- Evaluated **Zero-Shot**, **One-Shot**, and **Chain-of-Thought** prompting techniques, achieving highest accuracy and structure with **CoT-based task generation**.
- Enabled robust knowledge representation for robotic cooking tasks, improving execution reliability and advancing automation in unstructured environments.
- Tools Used:** Python, Jupyter, Gemini API, TensorFlow, Neural Networks

Full Stack Recipe Application

- Developed a **full-stack** platform using React, Node.js, Express, and PostgreSQL with user management features.
- The project involved the architecting of a robust back-end infrastructure hosted on **AWS EC2 instances**.
- Tools Used:** Tailwind, React.js, Node.js, PostgreSQL, AWS

Sentiment Analysis Of Twitter Data Using Deep learning

- Developed a sentiment classification model using a 3-layer Artificial Neural Network to categorize tweets as positive or negative.
- Preprocessed and vectorized Twitter data for training, achieving high accuracy through iterative tuning with TensorFlow and Keras.
- Tools Used:** Python, Keras, and TensorFlow